

CLAIMS

What is claimed is:

1. A method for use in providing location information regarding mobile units in a mobile communications system, said method comprising the steps of:
 - 5 receiving a request for location information for a first Mobile unit, said request identifying said first mobile unit and further including at least a first specification regarding a quality of said requested location information;
 - 10 based on said first specification, selecting at least one location information source capable of providing responsive location information for said first mobile unit;
 - 15 obtaining said responsive location information from said selected location information source, wherein said responsive information at least substantially conforms to said first specification regarding said quality of said requested location information; and
 - 20 providing said responsive location information to a selected location based on said request.
2. The method of Claim 1, further comprising the steps of:
 - 25 receiving a first indication of the general location of said first mobile unit; and
 - using said general location of said first mobile unit in said selecting step to identify location information sources in a proximity of said mobile unit such that one of said identified location information sources may provide said responsive location information.
3. The method of Claim 2, wherein said first indication of the general location of said mobile unit is a standard identifier utilized by said mobile communications system.

4. The method of Claim 3, wherein said standard identifier comprises at least one of a cell identifier and a cell sector identifier utilized by said mobile communications system.

5 5. The method of Claim 1, wherein said step of selecting further comprises selecting at least one location information source from a plurality of location information sources operable to provide said responsive location information.

10 6. The method of Claim 5, wherein said plurality of location information sources comprises one of a database containing responsive location information and equipment associated with the mobile communications system operable to obtain responsive location information.

15 7. The method of Claim 5, wherein said step of selecting further comprises utilizing a default specification to select between multiple acceptable location sources, where each of said multiple acceptable location sources is capable of obtaining location information at least substantially conforming to said first specification.

20 8. The method of Claim 1, wherein said step of obtaining further comprises invoking said selected location information source to provide said responsive location information.

25 9. The method of Claim 1, wherein:
said specification establishes a priority for selecting said location information source to provide responsive location information for a particular request.

30 10. The method of Claim 9, wherein said priority is established by a last in first out command.

11. The method of Claim 1, wherein
said specification specifies a particular type of location information source
for use in providing said responsive location information.

5 12. The method of Claim 1, wherein:
said specification regarding a quality of said requested location
information is related to a geographical accuracy for said responsive location
information.

10 13. The method of Claim 1, wherein:
said specification regarding a quality of said requested location
information is related to an acceptable cost associated with said responsive
location information.

15 14. The method of Claim 1, wherein:
said specification regarding a quality of said requested location
information is related to an allowable age of said responsive location information.

20 15. The method of Claim 1, wherein:
said specification regarding a quality of said requested location
information is related to acceptable response times to provide said responsive
location information.

25 16. The method of Claim 1, wherein said receiving step further
comprises correlating said specification to a corresponding value associated with
said location information sources.

30 17. The method of Claim 16, wherein said correlating step involves
correlating said specification to an average value associated a plurality of
location information sources.

18. The method of Claim 16, wherein said correlating step involves correlating said specification to a first value associated with an individual location information source.

5 19. The method of Claim 1, wherein said selecting step comprises consulting at least a first database in which information associated with said location information sources is stored.

10 20. The method of Claim 1, wherein said selecting step further comprises consulting at least a first database in which information regarding location determining abilities of said position location information sources are stored such that only location information sources capable of providing said responsive location information are selected.

15 21. A method for use in providing location information regarding mobile units in a mobile communications system, said method comprising the steps:

receiving a request for requested location information for a first mobile unit;

20 obtaining information regarding a general location of said first mobile communication unit;

based on said general location of said first mobile unit, identifying at least first and second sources operable to provide responsive location information regarding said first mobile unit in said general location;

25 selecting one of said first and second sources to provide said responsive location information;

obtaining said responsive location information from said selected location information source; and

providing said responsive location information to a selected location based on said request.

22. The method of Claim 21, further comprising the steps of:
receiving at least one specification regarding a quality of said location
information in said request; and
using said specification in said selecting step to select at least one of said
5 first and second sources to provide responsive location information.

23. The method of Claim 21, wherein said information regarding the
general location of said mobile unit is a standard identifier utilized by said mobile
communications system.

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24. The method of Claim 23, wherein said standard identifier comprises
at least one of a cell identifier and a cell sector identifier utilized by said mobile
communications system.

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25. The method of Claim 21, wherein said step of identifying at least
first and second information sources operable to provide responsive location
information includes the step of utilizing said general location information for
searching a database to determine location information sources operable to
provide responsive location information.

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26. The method of Claim 21, wherein said step of identifying at least
first and second information sources operable to provide responsive location
information includes the step of searching a database for existing location
information regarding said first Mobile unit that is responsive to said request.

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27. A method for use in providing location information regarding mobile units in a mobile communications system, said method comprising the steps:

5 establishing an interface allowing an application to provide requests for location information regarding a first mobile unit from a location platform, said interface defining a number of information fields that may be included in said requests;

10 receiving a first request for location information at said platform via said interface, wherein said first request includes at least one specification regarding a quality of said requested location information, said specification being included in one of said information fields;

15 based on said specification, obtaining responsive location information regarding said first mobile unit; and

20 providing said responsive location information to a selected location based on said request.

25 28. The method of Claim 27, wherein said step of establishing an interface comprises defining a number of messages that are useable by a user to selectively request location information for said mobile unit.

30 29. The method of Claim 27, wherein said plurality of information fields includes a field for use in specifying at least one of a priority of said request, a geographical accuracy of said location information, a cost associated with said location information, an age of said information and a response time for said location information.

35 30. The method of Claim 27, wherein said step of obtaining comprises identifying at least first and second information sources operable to provide responsive location information.

31. The method of Claim 27, wherein said step of obtaining includes searching at least a first database for existing location information that is responsive to said request.

5 32. The method of Claim 27, wherein said step of obtaining includes accessing at least a first database to correlate capabilities of location information sources in the mobile communications system with said specification.

10 33. An apparatus for providing location information regarding mobile units in a mobile communications system, said apparatus comprising:

a processing system in communication with a plurality of location information sources associated with said mobile communications system and at least one application for implementing at least one function based on mobile unit location;

15 portal logic, supported by said processing system, for receiving location information requests regarding at least a first mobile unit, wherein said portal logic is operable to receive a first location request containing one or more specifications regarding a quality of said location information;

20 selection logic, supported by said processing system, for identifying and selecting at least one of said location information sources operable to provide responsive location information based on said one or more specifications;

retrieval logic, supported by said processing system, for obtaining said responsive location information from said selected location information source; and

25 said portal logic further operable to provide said responsive location information to a location based on said first request.

30 34. The apparatus of Claim 33, wherein said portal logic is further operative to obtain a first indication of the general location of said first mobile unit from said location request.

35. The apparatus of Claim 34, wherein said selection logic is further operable to utilize said general location of said first Mobile unit in said identifying and selecting said location information sources operable to provide said responsive location information.

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36. The apparatus of Claim 35, wherein said selection logic is operable to access one or more of databases to provide said responsive location information.

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37. The apparatus of Claim 36, wherein said selection logic is operable to utilize said general location information to search said one or more of databases.

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38. The apparatus of Claim 34, wherein said databases comprise a database containing location information capabilities for location information sources associated with said mobile communications system.

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39. The apparatus of Claim 34, wherein said databases comprise a location cache operable to store location information for Mobile units operating in the mobile communication system.

40. The apparatus of Claim 34, wherein said databases comprise a home location register database associated with said mobile unit.

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41. The apparatus of Claim 33, wherein said portal logic defines a number of information fields for standardizing location communications between said processing system and said application.